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REMARKS/ARGUMENTS

Amended claim 1 recites, *inter alia*, updating an entry of a flush vector coupled to a filter if a match occurs between an entry in the filter and an address. The cited art fails to teach or suggest such a flush vector. In this regard, nothing in either Sindhu or Zuraski anywhere meets this claimed subject matter.

Furthermore, Zuraski nowhere teaches invalidating an entry of a filter if an update to the entry occurs during a context, as contended by the Office Action.

In this regard, the Office Action refers to col. 9, lns. 48-61 and col. 11, lns. 14-20 of Zuraski to contend presence of the claimed invalidating of an entry of a filter. The Office Action contends that flush filter 40 is the recited filter. While this may be, there is simply no teaching that an entry in this filter is invalidated if an update occurs to the entry. That is, nowhere do these cited portions or any other portion of Zuraski anywhere teach that an entry in flush filter 40 is invalidated if an update to the entry occurs during a context. Instead, both of these portions only teach that a flush filter 40 asserts an Invalidate signal out to a translation lookaside buffer (TLB) 39. Nowhere do these or any other portions of Zuraski teach that such Invalidate signal invalidates an entry of the filter itself. Certainly, Zuraski nowhere teaches invalidating such an entry if an update to the entry occurs during a context. Accordingly, claim 1 and the claims depending therefrom are patentable over the cited art.

Regarding amended claim 17, the cited art fails to teach or suggest the recited filter that is partitioned into different portions, each of which includes a static number of entries and at least one of which includes additional dynamic entries. The cited art fails to teach or suggest this filter. It is noted in this regard that the Office Action appears to contend that Zuraski somehow teaches a filter that is partitioned into a fixed portion and a dynamic portion, referring to column 2, lines 36-51. Office Action, p. 8. For ease of reference, this portion of Zuraski is reproduced below:

The region table used in one embodiment is implemented with a content addressable memory (CAM) and a random access memory (RAM). The CAM may be used to store information regarding the memory structures from which address translations are loaded into the TLB. Such information may include page directory information and page table information. The RAM may be used to store values of the base address register and its associated tag. A counter may also be used to track the number of base address entries. When the counter overflows, the TLB flush filter may then be deactivated, and the region table cleared. A region counter may also be used to record the number of entries stored in the CAM. An

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overflow of this counter may also cause the TLB flush filter to be deactivated and the region table cleared. Following the deactivation of the TLB flush filter, a context switch may result in a TLB flush. The TLB flush filter may then be activated once again.

Zuraski, 2:36-51.

As seen, while Zuraski teaches a filter including a region table with a CAM and a RAM, nothing teaches the recited partitioned filter with static entries for each of multiple address spaces and at least one partition including additional dynamic entries for at least one of the address spaces. Rather, in Zuraski all that is taught is that a CAM of a region table can store information "regarding the memory structures from which address translations are loaded into the TLB." Zuraski, 2:39-40. Similarly, the RAM may "store values of the base address register and its associated tag." *Id.*, col. 2, lns. 42-43. Nothing in Zuraski, however, teaches that multiple entries are provided for each of multiple address spaces.

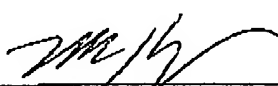
For similar reasons, independent claims 21, 25 and 28 are also patentable.

New claims 31-34 are patentable for at least the same reasons as the independent claims from which they depend.

In view of these remarks, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested. The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 20-1504.

Respectfully submitted,

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Mark J. Rozman
Registration No. 42,117
TROP, PRUNER & HU, P.C.
1616 S. Voss Road, Suite 750
Houston, Texas 77057-2631
(512) 418-9944 [Phone]
(713) 468-8883 [Fax]
Customer No.: 21906